Listing of Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

What is claimed is:

1. (previously presented) A method of modifying low frequency components of a digital audio signal having left and right channel signals, the method comprising the steps of: a) filtering the left and right channels signals using respective left and right high-pass filters to form left and right high-pass filtered signals; b) filtering the left and right channel signals using respective left and right band-pass filters to form left and right low frequency signals; c) modifying the amplitude of the left and right low frequency signals to give modified left and right low frequency signals whereby signals with amplitude a where $0 < a < a1$ are amplified by a first constant value C1, signals with amplitude $a1 \leq a < a2$ are amplified proportional to $1/a$, signals with amplitude $a = a2$ are unchanged, signals with amplitude $a2 < a < a3$ are attenuated proportional to $1/a$, and signals with amplitude $a = a3$ are attenuated by a second constant value C2; and d) combining the modified band-pass filtered left and right signals with the respective left and right high-pass filtered signals to form respective modified left and right channel audio signals.

2. (original) A method according to claim 1 wherein in step c), the amplitude a of the signal is taken to be the amplitude of the left or right low frequency signal which has the largest absolute value.

3. (original) A method according to claim 2 wherein the first constant value C1 is 12.5.

4. (original) A method according to claim 1 wherein the second constant value C2 is 0.5.

5. (original) A method according to claim 1 wherein a1 = 0.04.

6. (original) A method according to claim 1 wherein a2 = 0.5.

7. (original) A method according to claim 1 wherein a3 = 1.

8. (original) A method according to claim 1 wherein the digital audio signal is an MP3 encoded signal.

9. (original) A method according to claim 1 wherein the digital audio signal is in WAV format.

10. (original) A method according to claim 1 wherein the parameters of the band-pass filters are user selectable.

11. (original) A method according to claim 1 wherein the parameters of the high-pass filters are user selectable.

12. (previously presented) A method as claimed in claim 1 using a limiter having a transfer function having an output amplitude substantially equal to a constant value of 12.5 for input amplitude values ranging from about 0 to 0.04, and a value inversely proportional to the input amplitude for input amplitude values from 0.04 to 1.0.

13. (Cancelled)

14. (previously presented) An audio filtering system comprising at least one digital filter, the system configured to perform the method as recited in claim 1.

15. (previously presented) The method as recited in claim 1 wherein the left and right band pass filters are implemented as Butterworth infinite impulse response filters.

16. (previously presented) A method of enhancing the low frequency parts of an audio signal, the method comprising:

providing an audio signal to at least one bandpass filter to generate left and right low frequency signals;

deriving a control signal from the left and right low frequency signals, the control signal determined based on the respective low frequency signal having the larger absolute magnitude at each time point;

modifying the control signal by limiting its dynamic range such that the amplitude of the modified control signal has a first constant value C1 for input amplitudes between o and a1 and a value inversely proportional to input amplitude for input amplitude values greater than or equal to a1 but less than a3; and

amplifying the left and right low frequency signals using the modified control signal.

17. (previously presented) The method as recited in claim 16 wherein the at least one bandpass filter is configured to completely attenuate frequencies below a certain predetermined frequency.

18. (previously presented) The method as recited in claim 17 wherein the amplitude of the modified control signal is selected to provide a gain to the left and right low frequency signals at input amplitude values greater than or equal to a1 but less than a2, and to provide an attenuation for input amplitude values greater than a2 but less than or equal to a3, wherein signals with an input amplitude a3 are attenuated by a constant value C2.